

What is claimed is:

1. A measurement processing apparatus for measuring  
a geometric feature of an object image, comprising:

a measurement-reference-element setting unit  
5 which automatically sets at least one first measurement  
reference element for use in measurement of said  
geometric feature of said object image, at at least one  
first position on said object image based on first image  
data representing the object image and position  
information indicating at least one second position of at  
10 least one second measurement reference element which is  
set on a measurement reference image corresponding to the  
object image; and

a geometric-feature measurement unit which  
measures said geometric feature of said object image  
based on said at least one first position of said at  
least one first measurement reference element.

2. A measurement processing apparatus according to  
claim 1, wherein said measurement-reference-element  
20 setting unit sets in advance a region of interest at a  
third position on said object image corresponding to each  
of said at least one second position, and automatically  
sets one of said at least one first measurement reference  
element in said region of interest.

25 3. A measurement processing apparatus according to  
claim 1, wherein said measurement-reference-element

setting unit aligns in advance said object image with said measurement reference image before the measurement-reference-element setting unit automatically sets said at least one first measurement reference element.

5       4. A measurement processing apparatus according to claim 1, further comprising a storage unit which stores said position information and second image data representing said measurement reference image in a predetermined storage medium so that the position  
10 information is linked with the second image data, wherein said measurement-reference-element setting unit reads out said position information and the second image data from said predetermined storage medium, and automatically sets said at least one first measurement reference element based on said second image data as well as said first image data and said position information.

15      5. A measurement processing apparatus according to claim 1, wherein said measurement-reference-element setting unit obtains a first portion of said object image corresponding to a second portion of said measurement reference image located in a vicinity of each of said at least one second measurement reference element by using pattern matching processing, and automatically sets each of said at least one first measurement reference element  
20 at a position on said first portion of the object image corresponding to one of said at least one second

measurement reference element.

6. A measurement processing apparatus according to  
claim 1, wherein said measurement-reference-element  
setting unit searches for an edge in a vicinity of a  
5 third position on the object image corresponding to each  
of said at least one second measurement reference element,  
and automatically sets each of said at least one first  
measurement reference element based on information on the  
edge.

10 7. A measurement processing apparatus according to  
claim 1, wherein said measurement reference image is an  
image on which said geometric feature has been previously  
measured.

15 8. A measurement processing apparatus according to  
claim 1, wherein each of said object image and said  
measurement reference image is a chest image, and said  
geometric feature is a cardio-thoracic ratio.